# DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

#### LAKE TROPHIC DATA

### MORPHOMETRIC:

Lake: NORCRO	SS POND	Lake Area (ha):	2.83
Town:	LINCOLN	Maximum depth (m):	2.9
County:	Grafton	Mean depth (m):	1.1
River Basin:	Merrimack	Volume (m³):	32000
Latitude:		Relative depth:	1.5
Longitude:	71°24'26" W	Shore configuration:	1.51
Elevation (f	t): 3120	Areal water load (m/y	r): 19.94
Shore length	(m): 900	Flushing rate $(yr^{-1})$ :	17.60
Watershed are	ea (ha): 55	<pre>.6 P retention coeff.:</pre>	0.48
<pre>% watershed p</pre>	ponded: 0	.0 Lake type:	natural

BIOLOGICAL:	31 July 1995
DOM. PHYTOPLANKTON (% TOTAL) #1	DINOBRYON 95%
#2	
#3	
PHYTOPLANKTON ABUNDANCE (units/mL)	
CHLOROPHYLL-A (µg/L)	2.18
DOM. ZOOPLANKTON (% TOTAL) #1	CALANOID COPEPOD 49%
#2	KERATELLA 29%
#3	NAUPLIUS LARVA 14%
ROTIFERS/LITER	65
MICROCRUSTACEA/LITER	134
ZOOPLANKTON ABUNDANCE (#/L)	199
VASCULAR PLANT ABUNDANCE	Common
SECCHI DISK TRANSPARENCY (m)	2.2
BOTTOM DISSOLVED OXYGEN (mg/L)	8.8
BACTERIA (E. coli, #/100 ml) #1	< 1
#2	
#3	

# SUMMER THERMAL STRATIFICATION:

# weakly stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³): None

CHEMICAL:	Lake: NORCROSS POND Town: LINCOLN	
	31 July 1995	
DEPTH (m)	1.0	
pH (units)	5.2	
A.N.C. (Alkalinity)	0.8	
NITRATE NITROGEN	< 0.10	
TOTÁL KJELDAHL NITROGEN	0.36	
TOTAL PHOSPHORUS	0.016	
CONDUCTIVITY (µmhos/cm)	16.3	
APPARENT COLOR (cpu)	65	
MAGNESIUM	0.11	
CALCIUM	< 1.0	
SODIUM	< 1.0	
POTASSIUM	< 0.40	
CHLORIDE	< 2	
SULFATE	3	
TN : TP	23	
CALCITE SATURATION INDEX		

All results in mg/L unless indicated otherwise

#### TROPHIC CLASSIFICATION: 1995

D.O.	s.D.	PLANT	CHL	TOTAL	CLASS
**	3	3	0	6	Meso.

# **COMMENTS:**

- 1. This is a high elevation, remote, acid pond located on the same plateau as Nancy Pond, but is in the Pemigewasset watershed and not the Saco. It is located within the Pemigewasset Wilderness Area of the White Mountain National Forest.
- 2. The pond was not surveyed in the winter due to the difficult access.

#### FIELD DATA SHEET

LAKE: NORCROSS POND

DATE: 07/31/95

TOWN: LINCOLN

WEATHER: SUNNY & BREEZY

DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	22.2	9.1	104 %
0.5	22.0	8.9	100 %
1.0	20.2	8.9	96 %
1.5	19.8	8.9	94 %
2.0	19.2	8.8	93 %
	110		
			/V-90

SECCHI DISK (m): 2.2 COMMENTS:

BOTTOM DEPTH (m): 2.5

TIME: 1530

\*Dissolved oxygen values are in mg/L

# AQUATIC PLANT SURVEY LAKE: NORCROSS POND TOWN: LINCOLN DATE: 07/31/95 PLANT NAME Key ABUNDANCE **GENERIC** COMMON E Eriocaulon septangulare Pipewort Scattered Nuphar Yellow water lily Scat/Common

#### OVERALL ABUNDANCE: Common

# **GENERAL OBSERVATIONS:**

- Yellow lilies were small with stunted growth, probably due to the short growing season.
- 2. The outlet end was not navigable due to shallow water, rocks and dead trees.